

ABSTRACT

A liquid-droplet aerosol composition for delivery to a patient's respiratory tract is disclosed. The aerosol is formed by placing an aqueous  $\gamma$ -IFN solution having stabilizing and dispersing components against a plate having defined-size openings, and forcing the solution through the openings under conditions effective to form aqueous droplets having a volume mean diameter in one or more of a number of selected sizes in the 1-10 micron size range. The aerosol has the desired-size droplets and a  $\gamma$ -IFN biological activity and molecular size distribution substantially the same as that of the aqueous  $\gamma$ -IFN solution. Also disclosed is a method of administering to a selected region of a patient's respiratory tract, an amount of human  $\gamma$ -IFN having a known, selected gamma-interferon biological activity and molecular size distribution.